



Attorney Docket No. 2539/102

SYSTEM AND METHOD OF MAKING
AN IN-MOLD CLEAR-COATED COMPOSITE

Abstract

A plastic product covered with a clear coating which is applied through an in-mold coating process. Covalent bonds hold the clear coating and the plastic substrate together, and the clear coating is capable of resisting delamination and of inhibiting fading of a pigmented surface underlying the clear coating. A preferred in-mold coating method of preparing a plastic part with a clear-coat surface includes the steps of (a) providing a mold, (b) heating the mold, (c) providing an unpigmented first-reactant/solvent mixture, (d) providing an unpigmented second-reactant/solvent mixture, (e) mixing the first-reactant/solvent mixture and the second-reactant/solvent mixture to form a clear-coat mixture, (f) spraying the clear-coat mixture onto the heated mold surface, (g) providing a pigmented third-reactant/solvent mixture, (h) providing a fourth-reactant/solvent mixture, (i) mixing the third-reactant/solvent mixture and the fourth-reactant/solvent mixture to form a pigmented mixture, (j) spraying the pigmented mixture, during the open time of the clear-coat mixture, onto the clear-coat mixture previously sprayed onto the heated mold surface, (k) applying, over the sprayed pigmented mixture, a substrate-forming material, so as to create an uncured preform, and (l) allowing the preform to cure so as to form a substrate having a clear-coat surface.